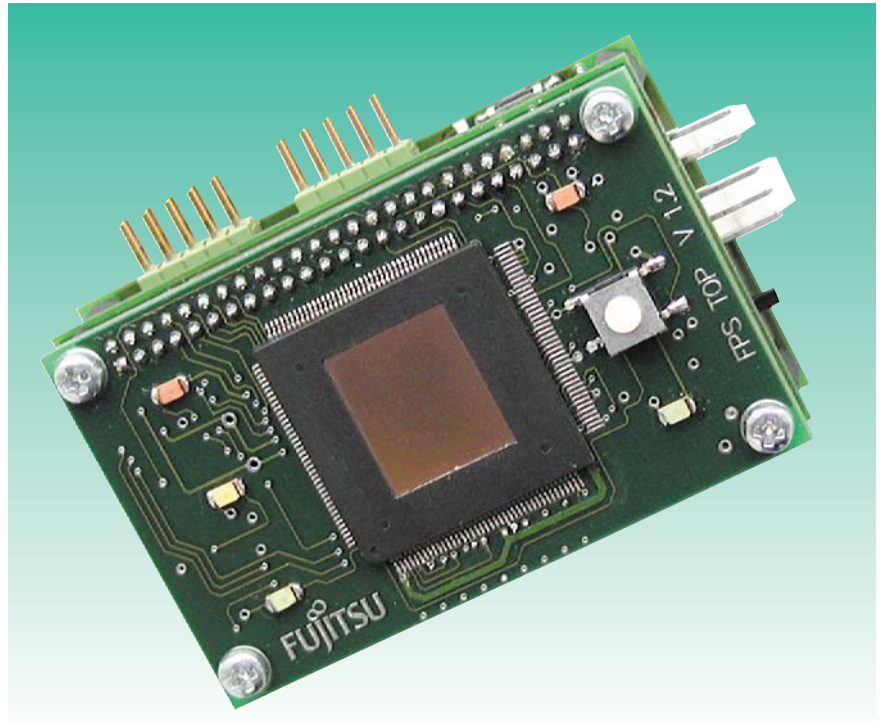


MDFP200-EDK FACTSHEET

EMBEDDED FINGERPRINT DEVELOPMENT KIT

Fujitsu is offering an embedded fingerprint solution - a stand-alone fingerprint authentication system with built-in Fujitsu MCU. The MDFP200-EDK integrates fingerprint capturing, processing, verification and storage into one system. In addition to the hardware, the user will receive a development environment including fingerprint algorithm libraries.

With this development kit, Fujitsu offers customers a development tool, as well as a sample hardware design for reference. Coming with a complete bill of material, this solution will enable users to save development costs and ensure faster time-to-market for their products.



Features & Advantages

- All-in-one solution, saving development cost and time
- Fujitsu's capacitive fingerprint sensor ensures stable operation independent of lighting conditions and temperature
- Efficient fingerprint matching algorithm, requiring low process power and small storage space for templates
- Short matching time achieved, allowing a fast and convenient authentication

System Specifications

- Authentication time for 1:1 matching
 - 1 second
- Template size per finger
 - Approx. 200Bytes
- Fingerprint storage capacity
 - 100 templates on module
 - Can be extended using an external database
- Fingerprint sensor
 - MBF200: 500dpi resolution
- Power Supply
 - Variable 5V-12V
- Power consumption
 - Operating mode = Typ 1000mW
- Hardware interface
 - RS-232
- Operating temperature - 0-70°C

EDK Contents

- MDFP200 EDK module stack
- Adjustable Power Supply 3-12V
- Two 9-pole SUB-D interface cables
- User manual including all schematics of the complete sample design and bill of material
- Software CD with complete documentations

MDFP200-EDK FACTSHEET

Technical Details

Hardware

- Fujitsu's CMOS solid-state single-touch fingerprint sensor MFB200
 - 500dpi resolution
 - 256x300 pixel array
 - Rugged super thin design (0,14cm)
- Fujitsu FR series 32bit RISC Processor MB91302
 - With built-in hardware multiplier and barrel shifter, 4KB of internal instruction cache
 - 68MHz internal operating frequency max
 - 3 UART interfaces, several GPIOs and 2 I²C interfaces
 - 3 reload timers, 4 input capture channels, 4 PPG timers and a watchdog timer
 - 5 channel DMA controller, 16 level interrupt controller, 4 channels of 10-bit ADC
 - Power saving mode (stop mode and sleep mode)
 - 144-pin QFP package
- On board memories: 8 MB SDRAM and 2 MB Flash

Application Software

- Fingerprint sensor driver library for capturing images, setup and control
- IKENDI's minutia based software library as fingerprint matching engine
 - Can be licensed directly from IKENDI
 - Code size approx. 100kByte
 - Proprietary template format allowing various kinds of system architecture
 - Host matching possible
 - Match on card possible on demand
- Flash utilities to download new applications and boot monitor
- Low memory consumption
 - 10% of on board memory is used

Software Design Tool

- Fujitsu Softune Workbench for the platform development
 - Complete tool chain, compiler, assembler and linker, after online registration

Interface

- 2 RS-232 9-pin serial port access for downloading, debugging and user application
- Relay: max 125V AC, max 28VA, max 1A
- Buzzer for acoustic signalisation
- LEDs used to display results of the fingerprint enrolment and verification process
- Switch buttons to change between Enrol and Verify, demo and development modes

Applications

- Point Of Sales
- Access Control
- Identification systems for public safety
- Computer and Network
- Time Attendance Management

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